

## ABSTRACT

The anti-viral vaccine of the present invention is produced in transgenic plants and then administered through standard vaccine introduction method or through the consumption of the edible portion of those plants. A DNA sequence encoding for the expression of a surface antigen of a viral pathogen is isolated and ligated to a promoter which can regulate the production of the surface antigen in a transgenic plant. This gene is then transferred to plant cells using a procedure that results in its integration into the plant genome, such as through the use of an *Agrobacterium tumefaciens* plasmid vector system. Preferably, the foreign gene is expressed in an portion of the plant that is edible by humans or animals. In a preferred procedure, the vaccine is administered through the consumption of the edible plant as food, preferably in the form of a fruit or vegetable juice which can be taken orally.